REMARKS / ARGUMENTS

A) Rejection of claims 1, 8, 36 and 39-43 under 35 U.S.C. §102(b) and of claims 2-7 and 9-14 under 35 USC §103(a)

In the Office Action, the Examiner has rejected claims 1, 8, 36 and 39-43 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,337,313 (hereinafter referred to as Buchholz et al.). The Examiner has also rejected dependent claims 2-7 and 9-14 under 35 U.S.C. §103(a) as being unpatentable over Buchholz et al. in view of U.S. Patent 6,483,805 (hereinafter referred to as Davies et al.). As discussed below, the Applicant respectfully disagrees with these rejections and submits that the claims of the present application distinguish clearly and patentably over the cited prior art references.

The invention claimed in the present application is directed to a device and method for ensuring flow control of an aggregate stream between two points in a data network, and more specifically for determining if packets are being dropped such that the flow can be regulated accordingly. Unlike prior art methods, this flow control is effected without having to add marking data to each and every packet of the aggregate stream, resulting in a more efficient bandwidth use.

The Examiner's attention is now directed towards the following limitations of claims 1 and 36 [emphasis added]:

> 1. A transmission device [...] comprising:
> [...]
> – a control unit operative to:
> a) generate for each packet of each aggregate traffic stream passing from said input to said output a unique packet

identifier for distinguishing the respective packet from all of the other packets, **by extracting at least a portion of the contents of the respective packet to serve as said packet identifier, wherein said at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet;**

b) [...]

c) forward the aggregate traffic streams to the destination point **without adding any data elements to the packets of the aggregate traffic streams.**

36. A transmission device [...] comprising:

[...]

– control means operative to:

a) generate for each packet of each aggregate traffic stream passing from said input means to said output means a unique packet identifier for distinguishing the respective packet from all of the other packets, **by extracting at least a portion of the contents of the respective packet to serve as said packet identifier, wherein said at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet;**

b) [...]

c) forward the aggregate traffic streams to the destination point **without adding any data elements to the packets of the aggregate traffic streams.**

Buchholz et al. do not disclose, teach nor suggest the above-emphasized limitations of claims 1 and 36. More specifically, Buchholz et al. do not disclose: (1) "extracting at least a portion of the contents of the respective packet to serve as [the] packet identifier, wherein [the] at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the packet"; (2) "[forwarding] the aggregate traffic streams to the destination point without adding any data elements to the packets of the aggregate traffic streams".

At page 3 of the Office Action, the Examiner has found that Buchholz et al. anticipates claims 1 and 36 since Buchholz et al. "has a[n] control unit for

extracting the information from the packet and generating a packet identifier which includes source ID and sequence number and storing the identified [of] packet in the memory; then transmitting the data packet of the source without adding any data element to the data packet that generated by the source". The Applicant disagrees with this assessment and respectfully submits that the Examiner has misinterpreted the Buccholz et al. patent for the reasons presented below.

There is no mention in the cited passages and figures of Buchholz et al., nor anywhere else in the Buchholz et al. patent, of the concept of extracting a portion of the contents of the packet to serve as a unique packet identifier, where this portion is not specifically designated for packet identification purposes within the packet, as claimed in claims 1 and 36.

Furthermore, Buchholz et al. do not teach nor suggest the concept of forwarding aggregate traffic streams to the destination point without adding any data elements to the packets of the aggregate traffic streams, as also claimed in claims 1 and 36. Rather, Buchholz et al. teach away from this concept, indicating at column 8, lines 14-16 that "the reassembly header of FIGS. 4 and 6 is constructed for the received packet". It can be clearly seen in Figures 4 and 6 of Buchholz et al., as well as inferred from the patent, that data is written into the corresponding data fields of the reassembly header for each packet in order to complete the packet before transmission (see column 8, lines 14-34). Buchholz et al. therefore cannot possibly be found to teach or suggest forwarding each aggregate traffic stream to the destination point without adding any data elements to the packets of the aggregate traffic stream.

In light of the foregoing, the Applicant respectfully submits that Buchholz et al. neither explicitly nor implicitly teach all of the limitations of independent

claims 1 and 36, such that the criteria for satisfying a rejection under 35 U.S.C. §102 have not been met[1]. Accordingly, the subject matter of claims 1 and 36 is believed to be novel and non-obvious over Buchholz et al.

In light of the foregoing, claims 2-7 and 39-41, which depend either directly or indirectly from claim 1 and therefore incorporate all of the limitations of base claim 1, are believed to be novel and non-obvious over both Buchholz et al. and the combination of Buchholz et al. and Davies et al.

The Examiner's attention is directed towards the following limitations of claim 8 [emphasis added]:

> 8. A method for forwarding aggregate traffic streams from a transmission device [...] comprising:
>
> [...]
>
> a) generating for each packet of each aggregate data stream passing from said input to said output a unique packet identifier for distinguishing the respective packet from all of the other packets, **by extracting at least a portion of the contents of the respective packet to serve as said packet identifier, wherein said at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet;**
>
> b) [...]
>
> c) forwarding the aggregate traffic streams to the destination point **without adding any data elements to the packets of the aggregate traffic streams.**

For the same reasons set forth above with respect to claims 1 and 36, the Applicant respectfully submits that claim 8 is neither anticipated nor rendered obvious by Buchholz et al.

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[1] According to MPEP §706.02, 8th ed., in order for the Examiner to cite a rejection under U.S.C. 102, "The reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present."

In light of the foregoing, claims 9-14 and 42, which depend either directly or indirectly from independent claim 8 and therefore incorporate all of the limitations of claim 8, are believed to be novel and non-obvious over both Buchholz et al. and the combination of Buchholz et al. and Davies et al.

The Examiner's attention is directed to the following limitations of claim 43 [emphasis added]:

> 43. A data transmission system comprising:
> [...]
> – each of said plurality of transmission nodes comprising:
> [...]
> c) a control unit operative to:
> i) generate for each packet of each aggregate traffic stream passing from said input means to said output means a unique packet identifier for distinguishing the respective packet from all of the other packets, **by extracting at least a portion of the contents of the respective packet to serve as said packet identifier, wherein said at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet;**
> ii) [...]
> iii) forward the aggregate traffic streams to the destination point **without adding any data elements to the packets of the aggregate traffic streams.**

For the same reasons set forth above with respect to claims 1 and 36, the Applicant respectfully submits that claim 43 is neither anticipated nor rendered obvious by Buchholz et al.

The Examiner is therefore respectfully requested to withdraw the rejection under 35 U.S.C. §102 of claims 1, 8, 36 and 39-43 over Buchholz et al., as well as the rejection under 35 U.S.C. §103 of claims 2-7 and 9-14 over Buchholz et al. in view of Davies et al.

B) Rejection of claims 1-14, 36 and 39-43 under 35 USC §103(a)

In the Office Action, the Examiner has also rejected claims 1-14, 36 and 39-43 under 35 U.S.C. §103(a) as being unpatentable over Davies et al. in view of U.S. Patent 6,473,425 (hereinafter referred to as Bellaton et al.). As discussed below, the Applicant respectfully disagrees with this rejection and submits that the claims of the application distinguish patentably over the combination of Davies et al. and Bellaton et al.

The Examiner's attention is directed towards the following limitations of claims 1 and 36 [emphasis added]:

> 1. A transmission device [...] comprising:
> [...]
> – a control unit operative to:
> a) generate for each packet of each aggregate traffic stream passing from said input to said output a unique packet identifier for distinguishing the respective packet from all of the other packets, **by extracting at least a portion of the contents of the respective packet to serve as said packet identifier, wherein said at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet;**
> [...].

> 36. A transmission device [...] comprising:
> [...]
> – control means operative to:
> a) generate for each packet of each aggregate traffic stream passing from said input means to said output means a unique packet identifier for distinguishing the respective packet from all of the other packets, **by extracting at least a portion of the contents of the respective packet to serve as said packet identifier, wherein said at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet;**
> [...].

The Applicant respectfully submits that the combination of Davies et al. and Bellaton et al. does not disclose, teach nor suggest the above-emphasized limitation of claims 1 and 36. More specifically, neither Davies et al. nor Bellaton et al. disclose "extracting at least a portion of the contents of the respective packet to serve as [the] packet identifier, wherein [the] at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet".

As admitted to by the Examiner at page 6 of the Office Action, there is no teaching nor suggestion in the Davies et al. patent of the concept of extracting a portion of the contents of the packet to serve as the packet identifier, where this portion is not specifically designated for packet identification purposes within the respective packet.

Furthermore, there is no such teaching or suggestion in the Bellaton et al. patent either. Rather, Bellaton et al. discuss filling data fields such as the source IP address, the destination IP address, the source TCP port and the destination TCP port in a queue control record by copying data from the header of TCP packets and/or associated IP datagrams to obtain a respective source IP address, destination IP address, source TCP port, destination TCP port for the queue control record (see column 8, line 61 to column 9, line 11). There is neither discussion nor suggestion in the Bellaton et al. patent of the concept of extracting a portion of the contents of the packet to serve as the packet identifier, where this portion is not specifically designated for packet identification purposes within the respective packet.

In light of the foregoing, the Applicant respectfully submits that the

combination of Davies et al. and Bellaton et al. does not disclose, teach nor suggest all of the limitations of claims 1 and 36, such that at least one criterion for establishing a *prima facie* case of obviousness in accordance with MPEP 706.02(j) has not been satisfied[2]. Accordingly, the subject matter of claims 1 and 36 is believed to distinguish patentably over the combination of Davies et al. and Bellaton et al.

Claims 2-7 and 39-41 depend either directly or indirectly from independent claim 1, and therefore incorporate all of the limitations of base claim 1. As such, for the same reasons set forth above with regard to claim 1, the Applicant respectfully submits that dependent claims 2-7 and 39-41 distinguish patentably over the combination of Davies et al. and Bellaton et al.

The Examiner's attention is directed towards the following limitations of claim 8 [emphasis added]:

> 8. A method for forwarding aggregate traffic streams from a transmission device [...] comprising:
>
> [...]
>
> a) generating for each packet of each aggregate data stream passing from said input to said output a unique packet identifier for distinguishing the respective packet from all of the other packets, **by extracting at least a portion of the contents of the respective packet to serve as said packet identifier, wherein said at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet;**
>
> [...].

[2] For the Examiner to establish a *prima facie* case of obviousness, three criteria must be considered: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all of the claim limitations. MPEP §§ 706.02(j), 2142 (8th ed.).

For the same reasons set forth above with respect to claims 1 and 36, the Applicant respectfully submits that the subject matter of independent claim 8 distinguishes patentably over the combination of Davies et al. and Bellaton et al.

Claims 9-14 and 42 depend either directly or indirectly from independent claim 8, and therefore incorporate all of the limitations of base claim 8. As such, dependent claims 9-14 and 42 are also believed to distinguish patentably over the combination of Davies et al. and Bellaton et al.

The Examiner's attention is directed to the following limitations of claim 43 [emphasis added]:

> 43. A data transmission system comprising:
> [...]
> – each of said plurality of transmission nodes comprising:
> [...]
> c) a control unit operative to:
> i) generate for each packet of each aggregate traffic stream passing from said input means to said output means a unique packet identifier for distinguishing the respective packet from all of the other packets, **by extracting at least a portion of the contents of the respective packet to serve as said packet identifier, wherein said at least a portion of the contents of the respective packet is not specifically designated for packet identification purposes within the respective packet;**
> [...].

For the same reasons set forth above with respect to claims 1 and 36, the Applicant respectfully submits that the subject matter of independent claim 43 distinguishes patentably over the combination of Davies et al. and Bellaton et al.

The Examiner is therefore respectfully requested to withdraw the rejection under 35 U.S.C. §103 of claims 1-14, 36 and 39-43 over Davies et al. in view of Bellaton et al.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-14, 36 and 39-43 are in condition for allowance. Favorable reconsideration is requested. Allowance of claims 1-14, 36 and 39-43 at an early date is solicited.

If the claims of the application are not considered to be in full condition for allowance, for any reason, the Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims or in making constructive suggestions so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,
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